

Curriculum vitae et studiorum of Andrea Pitacco

September 2025

Andrea Pitacco ([ORCID: 0000-0002-7260-6242](https://orcid.org/0000-0002-7260-6242)), born in Venice (Italy) on 26/04/1956, received his degree (full marks *cum laude*) in Agricultural Sciences from the University of Padua. He started his academic career at the Institute of Pomology, becoming associate professor in 2002 and full professor in 2018.

His research activity anticipated many issues that have become very topical over time, such as plant ecophysiology, the study of the relationships between agriculture and the environment – today crucial for interpreting the impacts of climate change and managing its mitigation –, agrometeorology applied to crop systems, the development of sustainable cultivation techniques, the study of the carbon sequestration capacity of agricultural crops (in particular of orchards and vineyards), the enhancement of the ecosystem services. Currently, his research activity is focused on the study of vegetation-atmosphere interactions, with particular regard to the theoretical and experimental characterization of turbulent transport processes in discontinuous plant canopies.

He has often faced methodological problems, contributing to the development of innovative experimental techniques that have become widespread today. In particular, he contributed to the development of micrometeorological techniques applied to the study of the energy, water and carbon balance of agricultural crops and natural surfaces in general. He actively participated in the work group on "Instrumental and Methodical Problems of Land Surface Measurements" of the European Geophysical Society, which coordinated the international EBEX-2000 surface energy balance measurement campaign. These activities culminated in his active participation in the European Strategic Research Infrastructure dedicated to monitoring the balance of greenhouse gases on agricultural and forest surfaces ICOS (Integrated Carbon Observation System). Within the ICOS framework, he is presently managing the only permanent station running on a vineyard.

He spent several periods at foreign universities and research institutes of high qualification: *National Institute for Agro-Environmental Sciences*, Tsukuba (Japan); *Institut für Meteorologie, Klimatologie und Fernerkundung*, Universität Basel (Switzerland); *Instituto Nacional del Agua, Universidad Nacional de Cuyo*, Mendoza (Argentina); *Department of Viticulture and Enology*, University of California, Davis (USA); *Gobabeb Research and Training Center* (Namibia). Many of his research lines have reached considerable practical results over time, obtaining significant appreciation from the world of stakeholders and producers (Ministry of Agricultural, Food and Forestry Policies, Veneto Region, Viticultural Protection Consortia, etc.), in particularly as regards the management of water in agriculture, the mitigation of adverse impacts of climate change and the accounting of carbon “sequestration” by agricultural perennial crops.

Presently, he is teaching the courses *Viticulture*, *New challenges in Viticulture*, *Vegetation*, *Micrometeorology and Climate change*, and *Monitoring Carbon and Water Budget of Agricultural Crops*.

Recent ISI/WoS papers (last 5 years) [IF, citations by 30/09/2025]

1. Canton, M., Mirone, F., Meggio, F., Pichierri, A., Casolo, V., Tornielli, G.B., **Pitacco, A.**, 2025. Consecutive moderate and severe drought stresses affect chlorophyll fluorescence and non-structural carbohydrates dynamics in grapevine leaves. *PHYSIOLOGIA PLANTARUM* 177, e70535. doi.org/10.1111/ppl.70535 [3.600, 0]
2. Tundo, S., Bolzonello, A., Meggio, F., **Pitacco, A.**, Sella, L., Favaron, F., Solla, A., 2025. Drought, waterlogging and co-infection influence the severity of *Coniella granati* and *Phytophthora palmivora* in pomegranate and the biocontrol efficacy of *Bacillus amyloliquefaciens*. *PLANT PATHOLOGY* 74, 1187-1196. doi.org/10.1111/ppa.14058 [2.400, 0]
3. Prazaru, S.C., dal Mas, G., Padoin, M., Rizzardo, D., Meggio, F., Pitacco, A., Pozzebon, A., Duso, C., 2023. Effect of leaf removal and insecticide applications on population densities of leafhoppers and mites associated with grapevines. *INSECTS* 14, 791. [10.3390/insects14100791](https://doi.org/10.3390/insects14100791) [2.900, 0]
4. Xie, M., Ma, X., Wang, Y., Li, C., Shi, H., Yuan, X., Hellwich, O., Chen, C., Zhang, W., Zhang, C., Ling, Q., Gao, R., Zhang, Y., Ochege, F.U., Frankl, A., De Maeyer, P., Buchmann, N., Feigenwinter, I., Olesen, J.E., Juszczak, R., Jacotot, A., Korrensalo, A., **Pitacco, A.**, Varlagin, A., Shekhar, A., Lohila, A., Carrara, A., Brut, A., Kruijt, B., Loubet, B., Heinesch, B., Chojnicki, B., Helfter, C., Vincke, C., Shao, C., Bernhofer, C., Brümmer, C., Wille, C., Tuittila, E.-S., Nemitz, E., Meggio, F., Dong, G., Lanigan, G., Niedrist, G., Wohlfahrt, G., Zhou, G., Goded, I., Gruenwald, T., Olejnik, J., Jansen, J., Neirynck, J., Tuovinen, J.-P., Zhang, J., Klumpp, K., Pilegaard, K., Šigut, L., Klemetsson, L., Tezza, L., Hörtnagl, L., Urbaniak, M., Roland, M., Schmidt, M., Sutton, M.A., Hehn, M., Saunders, M., Mauder, M., Aurela, M., Korkiakoski, M., Du, M., Vendrame, N., Kowalska, N., Leahy, P.G., Alekseychik, P., Shi, P., Weslien, P., Chen, S., Fares, S., Friborg, T., Tallec, T., Kato, T., Sachs, T., Maximov, T., di Cella, U.M., Moderow, U., Li, Y., He, Y., Kosugi, Y., Luo, G., 2023. Monitoring of carbon-water fluxes at Eurasian meteorological stations using random forest and remote sensing. *SCIENTIFIC DATA* 10, 587. [10.1038/s41597-023-02473-9](https://doi.org/10.1038/s41597-023-02473-9) [6.900, 11]
5. Vendrame, N., Tezza, L. **Pitacco, A.**, 2023. Evolution of turbulent flow characteristics in a hedgerow vineyard during the growing season. *AGRICULTURAL AND FOREST METEOROLOGY* 328, 109251, doi.org/10.1016/j.agrformet.2022.109251 [5.734, 1]
6. Minardi, I., Tezza, L., **Pitacco, A.**, Valenti, L., Coppo, L., Ghiglieno, I., 2022. Evaluation of nitrous oxide emissions from vineyard soil: Effect of organic fertilisation and tillage. *JOURNAL OF CLEANER PRODUCTION*, 134557, doi.org/10.1016/j.jclepro.2022.134557 [11.072, 5]
7. Straffelini, E., Pijl, A., Otto, S., Marchesini, E., **Pitacco, A.**, Tarolli, P., 2022. A high-resolution physical modelling approach to assess runoff and soil erosion in vineyards under different soil managements. *SOIL AND TILLAGE RESEARCH* 222, 105418, doi.org/10.1016/j.still.2022.105418 [5.374, 27]
8. Lembrechts, J.J., van den Hoogen, J., Aalto, J., Ashcroft, M.B., De Frenne, P., Kemppinen, J., Kopecký, M., Luoto, M., Maclean, I.M.D., Crowther, T.W., Bailey, J.J., Haesen, S., Klimes, D.H., Niittynen, P., Scheffers, B.R., Van Meerbeek, K., Aartsma, P., Abdalaze, O., Abedi, M., Aerts, R., Ahmadian, N., Ahrends, A., Alatalo, J.M., Alexander, J.M., Nina Allonsius, C., Altman, J., Ammann, C., Andres, C., Andrews, C., Ardö, J., Arriga, N., Arzac, A., Aschero, V., Assis, R.L., Johann Assmann, J., Bader, M.Y., Bahalkeh, K., Barančok, P., Barrio, I.C., Barros, A., Barthel, M., Basham, E.W., Bauters, M., Bazzichetto, M., Belelli Marchesini, L., Bell, M.C., Benavides, J.C., Luis Benito Alonso, J., Berauer, B.J., Bjerke, J.W., Björk, R.G., Björkman, M.P., Björnsdóttir, K., Blonder, B., Boeckx, P., Boike, J., Bokhorst, S., Brum, B.N.S., Brūna, J., Buchmann, N., Buysse, P., Luís Camargo, J., Campoe, O.C., Candan, O., Canessa, R., Cannone, N., Carbognani, M., Carnicer, J., Casanova-Katny, A., Cesarz, S., Chojnicki, B., Choler, P., Chown, S.L., Cifuentes, E.F., Čiliak, M., Contador, T., Convey, P., Cooper, E.J., Cremonese, E., Curasi, S.R., Curtis, R., Cutini, M., Johan Dahlberg, C., Daskalova, G.N., Angel de Pablo, M., Della Chiesa, S., Dengler, J., Deronde, B., Descombes, P., Di Cecco, V., Di Musciano, M., Dick, J., Dimarco, R.D., Dolezal, J., Dorrepaal, E., Dušek, J., Eisenhauer, N., Eklundh, L., Erickson, T.E., Erschbamer, B., Eugster, W., Ewers, R.M., Exton, D.A., Fanin, N., Fazlioglu, F., Feigenwinter, I., Fenu, G., Ferlian, O., Rosa Fernández Calzado, M., Fernández-Pascual, E., Finckh, M., Finger Higgens, R., Forte, T.A.G.W., Freeman, E.C., Frei, E.R., Fuentes-Lillo, E., García, R.A., García, M.B., Géron, C., Gharun, M., Ghosn, D., Gigauri, K., Gobin, A., Goded, I., Goeckede, M., Gottschall, F., Goulding, K., Govaert, S., Jessen Graae, B., Greenwood, S., Greiser, C., Grelle, A., Guénard, B., Guglielmin, M., Guillemot, J., Haase, P., Haider, S., Halbritter, A.H., Hamid, M., Hammerle, A., Hampe, A., Haugum, S.V., Hederová, L., Heinesch, B., Helfter, C., Hepenstrick, D., Herberich, M., Herbst, M., Hermanutz, L., Hik, D.S., Hoffrén, R., Homeier, J., Hörtnagl, L., Høye, T.T., Hrbacek, F., Hylander, K., Iwata, H., Antoni Jackowicz-Korczynski, M., Jactel, H., Järveoja, J., Jastrzębowski, S., Jentsch, A., Jiménez, J.J., Jónsdóttir, I.S.,

- Jucker, T., Jump, A.S., Juszczak, R., Kanka, R., Kašpar, V., Kazakis, G., Kelly, J., Khuroo, A.A., Klemedtsson, L., Klisz, M., Kljun, N., Knohl, A., Kobler, J., Kollár, J., Kotowska, M.M., Kovács, B., Kreyling, J., Lamprecht, A., Lang, S.I., Larson, C., Larson, K., Laska, K., le Maire, G., Leihy, R.I., Lens, L., Liljebladh, B., Lohila, A., Lorite, J., Loubet, B., Lynn, J., Macek, M., Mackenzie, R., Magliulo, E., Maier, R., Malfasi, F., Máliš, F., Man, M., Manca, G., Manco, A., Manise, T., Manolaki, P., Marciniak, F., Matula, R., Clara Mazzolari, A., Medinets, S., Medinets, V., Meeussen, C., Merinero, S., de Cássia Guimarães Mesquita, R., Meusburger, K., Meysman, F.J.R., Michaletz, S.T., Milbau, A., Moiseev, D., Moiseev, P., Mondoni, A., Monfries, R., Montagnani, L., Moriana-Armendariz, M., Morra di Cella, U., Mörsdorf, M., Mosedale, J.R., Muffler, L., Muñoz-Rojas, M., Myers, J.A., Myers-Smith, I.H., Nagy, L., Nardino, M., Naujokaitis-Lewis, I., Newling, E., Nicklas, L., Niedrist, G., Niessner, A., Nilsson, M.B., Normand, S., Nosetto, M.D., Nouvellon, Y., Nuñez, M.A., Ogaya, R., Ogée, J., Okello, J., Olejnik, J., Eivind Olesen, J., Opedal, Ø., Orsenigo, S., Palaj, A., Pampuch, T., Panov, A.V., Pärtel, M., Pastor, A., Pauchard, A., Pauli, H., Pavelka, M., Pearse, W.D., Peichl, M., Pellissier, L., Penczykowski, R.M., Penuelas, J., Petit Bon, M., Petraglia, A., Phartyal, S.S., Phoenix, G.K., Pio, C., **Pitacco, A.**, Pitteloud, C., Plichta, R., Porro, F., Portillo-Estrada, M., Poulenard, J., Poyatos, R., Prokushkin, A.S., Puchalka, R., Puşcaş, M., Radujković, D., Randall, K., Ratier Backes, A., Remmele, S., Remmers, W., Renault, D., Risch, A.C., Rixen, C., Robinson, S.A., Robroek, B.J.M., Rocha, A.V., Rossi, C., Rossi, G., Rounsford, O., Rubtsov, A.V., Saccone, P., Sagot, C., Sallo Bravo, J., Santos, C.C., Sarneel, J.M., Scharnweber, T., Schmeddes, J., Schmidt, M., Scholten, T., Schuchardt, M., Schwartz, N., Scott, T., Seeber, J., Cristina Segalin de Andrade, A., Seipel, T., Semenchuk, P., Senior, R.A., Serra-Diaz, J.M., Sewerniak, P., Shekhar, A., Sidenko, N.V., Siebicke, L., Siegwart Collier, L., Simpson, E., Siqueira, D.P., Sitková, Z., Six, J., Smiljanic, M., Smith, S.W., Smith-Tripp, S., Somers, B., Vedel Sørensen, M., João L. L. Souza, J., Israel Souza, B., Souza Dias, A., Spasojevic, M.J., Speed, J.D.M., Spicher, F., Stanisci, A., Steinbauer, K., Steinbrecher, R., Steinwandter, M., Stemkovski, M., Stephan, J.G., Stiegler, C., Stoll, S., Svátek, M., Svoboda, M., Tagesson, T., Tanentzap, A.J., Tanneberger, F., Theurillat, J.-P., Thomas, H.J.D., Thomas, A.D., Tielbörger, K., Tomaselli, M., Albert Treier, U., Trouillier, M., Dan Turtureanu, P., Tutton, R., Tyystjärvi, V.A., Ueyama, M., Ujházy, K., Ujházyová, M., Uogintas, D., Urban, A.V., Urban, J., Urbaniak, M., Ursu, T.-M., Primo Vaccari, F., Van de Vondel, S., van den Brink, L., Van Geel, M., Vandvik, V., Vangansbeke, P., Varlagin, A., Veen, G.F., Veenendaal, E., Venn, S.E., Verbeeck, H., Verbruggen, E., Verheijen, F.G.A., Villar, L., Vitale, L., Vittoz, P., Vives-Inglá, M., von Oppen, J., Walz, J., Wang, R., Wang, Y., Way, R.G., Wedegärtner, R.E.M., Weigel, R., Wild, J., Wilkinson, M., Wilmking, M., Wingate, L., Winkler, M., Wipf, S., Wohlfahrt, G., Xenakis, G., Yang, Y., Yu, Z., Yu, K., Zellweger, F., Zhang, J., Zhang, Z., Zhao, P., Ziemlińska, K., Zimmermann, R., Zong, S., Zyryanov, V.I., Nijs, I., Lenoir, J., 2022. Global maps of soil temperature. *GLOBAL CHANGE BIOLOGY* 28, 3110-3144, doi.org/10.1111/gcb.16060 [9.610, 218]
9. Hilland R.V.J., Bernhofer C., Bohmann M., Christen A., Katurji M., Maggs-Kölling G., Krauß M., Larsen J.A., Marais E., **Pitacco A.**, Schumacher B., Spirig R., Vendrame N., Vogt R., 2022. The Namib Turbulence Experiment: Investigating surface-atmosphere heat transfer in three dimensions. *BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY* 103, E741-E760, doi.org/10.1175/BAMS-D-20-0269.1 [6.380, 3]
 10. Fu Z., Ciais P., Makowski D., Bastos A., Stoy P.C., Ibrom A., Knohl, A., Migliavacca M., Cuntz M., Šigut L., Peichl M., Loustau D., El-Madany T.S., Buchmann N., Gharun M., Janssens I., Markwitz C., Grünwald T., Rebmann C., Mölder M., Varlagin A., Mammarella I., Kolari P., Bernhofer C., Heliasz M., Vincke C., **Pitacco A.**, Cremonese E., Foltýnová L., Wigneron J.-P., 2022. Uncovering the critical soil moisture thresholds of plant water stress for European ecosystems. *GLOBAL CHANGE BIOLOGY* 28, 2111-2123, doi.org/10.1111/gcb.16050 [9.610, 67]
 11. Petit, G., Bleve, G., Gallo, A., Mita, G., Montanaro, G., Nuzzo, V., Zambonini, D., **Pitacco, A.**, 2021. Susceptibility to *Xylella fastidiosa* and functional xylem anatomy in *Olea europaea*: revisiting a tale of plant-pathogen interaction. *AoB PLANTS* 13, plab027, doi.org/10.1093/aobpla/plab027 [3.276, 26]
 12. Fu, Z., Ciais, P., Bastos, A., Stoy, P.C., Yang, H., Green, J.K., Wang, B., Yu, K., Huang, Y., Knohl, A., Šigut, L., Gharun, M., Cuntz, M., Arriga, N., Roland, M., Peichl, M., Migliavacca, M., Cremonese, E., Varlagin, A., Brümmer, C., Motte, L.G.d.l., Fares, S., Buchmann, N., El-Madany, T.S., **Pitacco, A.**, Vendrame, N., Li, Z., Vincke, C., Magliulo, E., Koebisch, F., 2020. Sensitivity of gross primary productivity to climatic drivers during the summer drought of 2018 in Europe. *PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B: BIOLOGICAL SCIENCES* 375, 20190747, doi.org/10.1098/rstb.2019.0747 [7.828, 107]
 13. Graf, A., Klosterhalfen, A., Arriga, N., Bernhofer, C., Bogen, H., Bornet, F., Brüggemann, N., Brümmer, C., Buchmann, N., Chi, J., Chipeaux, C., Cremonese, E., Cuntz, M., Dušek, J., El-Madany, T.S., Fares, S., Fischer, M., Foltýnová, L., Gharun, M., Ghiasi, S., Gielen, B., Gottschalk, P., Grünwald, T., Heinemann, G., Heinesch, B.,

- Heliasz, M., Holst, J., Hörtnagl, L., Ibrom, A., Ingwersen, J., Jurasinski, G., Klatt, J., Knohl, A., Koebsch, F., Konopka, J., Korkiakoski, M., Kowalska, N., Kremer, P., Kruijt, B., Lafont, S., Léonard, J., Ligne, A.D., Longdoz, B., Loustau, D., Magliulo, V., Mammarella, I., Manca, G., Mauder, M., Migliavacca, M., Mölder, M., Neiryneck, J., Ney, P., Nilsson, M., Paul-Limoges, E., Peichl, M., **Pitacco, A.**, Poyda, A., Rebmann, C., Roland, M., Sachs, T., Schmidt, M., Schrader, F., Siebicke, L., Šigut, L., Tuittila, E.-S., Varlagin, A., Vendrame, N., Vincke, C., Völksch, I., Weber, S., Wille, C., Wizemann, H.-D., Zeeman, M., Vereecken, H., 2020. Altered energy partitioning across terrestrial ecosystems in the European drought year 2018. *PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B: BIOLOGICAL SCIENCES* 375, 20190524, doi.org/10.1098/rstb.2019.0524 [7.828, 50]
14. Lechthaler, S., Kiorapostolou, N., **Pitacco, A.**, Anfodillo, T., Petit, G., 2020. The total path length hydraulic resistance according to known anatomical patterns: What is the shape of the root-to-leaf tension gradient along the plant longitudinal axis? *JOURNAL OF THEORETICAL BIOLOGY* 502, 110369 doi.org/10.1016/j.jtbi.2020.110369 [2.691, 30]
15. Vendrame, N., Tezza, L., **Pitacco, A.**, 2020. Comparison of sensible heat fluxes by large aperture scintillometry and eddy covariance over two contrasting-climate vineyards. *AGRICULTURAL AND FOREST METEOROLOGY* 288-289, 108002. doi.org/10.1016/j.agrformet.2020.108002 [5.734, 8]



Andrea Pitacco

Padova, September 30th 2025